

## Asst. Prof. ELÇİN BAKIR

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: AAO-3127-2021

ScopusID: 57193533271

Yoksis Researcher ID: 220041

### Education Information

Doctorate, Hacettepe University, Sağlık Bilimleri Enstitüsü, Farmasötik Toksikoloji, Turkey 2013 - 2018

Undergraduate, Erciyes University, Eczacılık Fakültesi, Eczacılık Bölümü, Turkey 2008 - 2013

### Foreign Languages

English, B2 Upper Intermediate

### Certificates, Courses and Trainings

Health&Medicine, Basic Molecular Biology Techniques Course, Western Blot, RT-PCR, Ziya Eren İlaç Uygulama ve Araştırma Merkezi, 2019

Health&Medicine, Recent Developments and the Use of Non-Invasive Samples in Comet Assay, 10th International Congress of the Turkish Society of Toxicology, 2019

Quality Management, GLP (Good Laboratory Practices / İLU (İyi Laboratuvar Uygulamaları), The Swiss Consulting/ERFARMA, 2019

Health&Medicine, "LCMS-8040" Kullanıcı Eğitimi, Ant Teknik, 2017

Health&Medicine, "GCMS", Ant Teknik, 2016

Health&Medicine, IV. Uygulamalı Temel Hücre Kültürü Teknikleri Kursu, GENKÖK, 2016

Health&Medicine, "HPLC", Ant Teknik, 2016

Health&Medicine, Oxidants and Antioxidants, TURKHELTOX, 2015

Health&Medicine, Genotoxicity and Methods of Analysis, TURKHELTOX, 2015

Health&Medicine, Eppendorf Pipet Sistemi, İncekaralar, 2015

Health&Medicine, Deney Hayvanları Kullanım Sertifikası, ERSEM, 2013

### Dissertations

Doctorate, FLURBİPROFENİN SİTOTOKSİK, GENOTOKSİK VE APOPTOTİK ETKİLERİNİN DEĞERLENDİRİLMESİ, Hacettepe Üniversitesi, 2018

## Research Areas

Health Sciences, Pharmacology and Therapeutics, Professional Sciences, Pharmaceutical Toxicology

## Academic Titles / Tasks

Assistant Professor, Erciyes University, Eczacılık Fakültesi, Eczacılık Meslek Bilimleri, 2020 - Continues

Research Assistant PhD, Erciyes University, Eczacılık Fakültesi, Eczacılık Meslek Bilimleri, 2018 - 2020

Research Assistant, Erciyes University, Eczacılık Fakültesi, Eczacılık Meslek Bilimleri, 2014 - 2018

## Academic and Administrative Experience

Internship Committee Member, Erciyes University, Eczacılık Fakültesi, Eczacılık Meslek Bilimleri, 2014 - Continues

## Courses

Pharmaceutical Toxicology Laboratory, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

Genetic Toxicology, Undergraduate, 2024 - 2025, 2023 - 2024

GRADUATION PROJECT 2, Undergraduate, 2023 - 2024, 2022 - 2023, 2020 - 2021, 2019 - 2020

Pharmaceutical Toxicology I, Undergraduate, 2024 - 2025, 2023 - 2024, 2022 - 2023

GRADUATION PROJECT 1, Undergraduate, 2024 - 2025, 2023 - 2024, 2022 - 2023, 2020 - 2021, 2019 - 2020

Pharmaceutical Toxicology II, Undergraduate, 2023 - 2024, 2022 - 2023

GÜZ STAJI, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021

ADDICTION PROBLEMS, Undergraduate, 2023 - 2024, 2022 - 2023, 2020 - 2021, 2019 - 2020

Poisonings and Antidotal Approaches, Postgraduate, 2023 - 2024

BAHAR STAJI, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021

Genetic Toxicology, Postgraduate, 2023 - 2024, 2022 - 2023

PHARMACEUTICAL TOXICOLOGY, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Hydroxychloroquine induces oxidative stress and impairs fracture healing in rats**  
Topak D., Gurbuz K., Dogar F., Bakır E., Gürbüz P., Kilinc E., Bilal O., Eken A.  
JOINT DISEASES AND RELATED SURGERY, vol.34, no.2, pp.346-355, 2023 (SCI-Expanded)
- II. **Investigation of the toxicity of a glyphosate-based herbicide in a human liver cell line: Assessing the involvement of Nrf2 pathway and protective effects of vitamin E and alpha-lipoic acid**  
Ünlü Endirlik B., Bakır E., Ökçesiz A., Güler A., Hamurcu Z., Eken A., Dreij K., Gürbay A.  
ENVIRONMENTAL TOXICOLOGY AND PHARMACOLOGY, vol.96, 2022 (SCI-Expanded)
- III. **Doxazosin and erlotinib have anticancer effects in the endometrial cancer cell and important roles in ER alpha and Wnt/beta-catenin signaling pathways**  
Karaca B., Bakır E., Yerer M. B., Cumaoglu A., Hamurcu Z., Eken A.  
JOURNAL OF BIOCHEMICAL AND MOLECULAR TOXICOLOGY, vol.35, no.11, 2021 (SCI-Expanded)
- IV. **Assessment of the cytotoxic, genotoxic, and apoptotic potential of flurbiprofen in HeLa and HepG2 cell lines**  
Bakır E., Çal T., Aydın Dilsiz S., Canpınar H., Eken A., Ündeğer Bucurgat Ü.  
JOURNAL OF BIOCHEMICAL AND MOLECULAR TOXICOLOGY, vol.35, no.6, 2021 (SCI-Expanded)
- V. **Cherry laurel fruit extract counters dimethoate-induced reproductive impairment and testicular**

## **apoptosis.**

Bakır E., Sarıözkan S., Ünlü Endirlik B., Baldemir Kılıç A., Yay A. H., Cantürk Tan F., Eken A., Türk G.  
Arhiv za higijenu rada i toksikologiju, vol.71, no.4, pp.329-338, 2020 (SCI-Expanded)

- VI. **Assessment of perfluoroalkyl substances levels in tap and bottled water samples from Turkey**  
Ünlü Endirlik B., Bakır E., Boşgelmez İ. İ., Eken A., Narin İ., Gürbay A.  
CHEMOSPHERE, vol.235, pp.1162-1171, 2019 (SCI-Expanded)
- VII. **An Investigation on Protective Effect of Viburnum opulus L. Fruit Extract Against Ischemia/Reperfusion-Induced Oxidative Stress after Lung Transplantation in Rats**  
Eken A., Yücel O., Boşgelmez İ. İ., Baldemir A., Çubuk S., Cermik A. H., Ünlü Endirlik B., Bakır E., Yıldızhan A., Güler A., et al.  
KAFKAS UNIVERSITESI VETERINER FAKULTESI DERGISI, vol.23, no.3, pp.437-444, 2017 (SCI-Expanded)
- VIII. **Effect of Laurocerasus officinalis Roem. (Cherry Laurel) Fruit on Dimethoate Induced Hepatotoxicity in Rats**  
EKEN A., Endirlik B., BAKIR E., Baldemir A., YAY A. H., CANTURK F.  
KAFKAS UNIVERSITESI VETERINER FAKULTESI DERGISI, vol.23, no.5, pp.779-787, 2017 (SCI-Expanded)

## **Articles Published in Other Journals**

- I. **ANTIPROLIFERATIVE AND ANTIOXIDANT EFFECTS OF CARNOSIC ACID ON HUMAN LIVER CANCER CELLS**  
Akn U. N., Bakır E., Ökçesiz Haciseyitoğlu A., Eken A.  
Sağlık Bilimleri Dergisi, vol.33, no.1, pp.60-66, 2024 (Peer-Reviewed Journal)
- II. **Investigation of Dimethoate Toxicity in Rat Brain and Protective Effect of Laurocerasus officinalis Roem. Fruit Extract Against Oxidative Stress, DNA Damage, and Apoptosis Dimethoate Toksikitesinin Sıçan Beyninde Araştırılması ve Laurocerasus officinalis Roem. Meyve Ekstresinin Oksidatif Stres, DNA Hasarı ve Apoptoza Karşı Koruyucu Etkisi**  
ÜNLÜ ENDİRLİK B., BAKIR E., YAY A. H., CANTÜRK TAN F., BALDEMİR KILIÇ A., EKEN A.  
Fabad Journal of Pharmaceutical Sciences, vol.48, no.1, pp.139-150, 2023 (Scopus)
- III. **EVALUATION OF ROUNDUP® TOXICITY IN HUMAN LUNG CELLS**  
Ünlü Endirlik B., Bakır E., Ökçesiz A., Hamurcu Z., Eken A., Gürbay A.  
ANKARA UNIVERSITESI ECZACILIK FAKULTESI DERGISI, vol.47, no.1, pp.261-269, 2023 (Scopus)
- IV. **An interdisciplinary overview of  $\alpha$ -PVP**  
Kariper İ. A., Metin A., Büyükbezirci K., Eken A., Bakır E.  
REVUE DE MEDECINE LEGALE, vol.13, pp.131-138, 2022 (Scopus)
- V. **Evaluation of Cytotoxic Effects of Carnosic Acid Alone and Combination with Cisplatin in HepG2 Cells**  
Akn U. N., Bakır E., Ökçesiz A., Eken A.  
Proceedings, vol.40, no.1, pp.39, 2019 (Peer-Reviewed Journal)
- VI. **Kinazolin türevi bileşiklerin olası sitotoksik etkilerinin endometriyum kanser hücrelerinde araştırılması**  
Karaca B., BAKIR E., EKEN A.  
Journal of Health Sciences, vol.28, pp.47-51, 2019 (Peer-Reviewed Journal)
- VII. **ESSENTIAL ELEMENT AND METAL CONTENT OF CHERRY LAUREL (LAUROCERASUS OFFICINALIS ROEM.)FRUIT AND SEEDS**  
Eken A., Baldemir A., Ünlü Endirlik B., Bakır E., İlgin S.  
JOURNAL OF HEALTH SCIENCES, vol.26, pp.1-4, 2017 (Peer-Reviewed Journal)
- VIII. **HISTOPATHOLOGICAL EFFECT OF DIMETHOATE ON LUNG OF RAT AND THE PROTECTIVE ROLE OF LAUROCERASUS OFFICINALIS ROEM. (CHERRY LAUREL)FRUIT\***  
Eken A., Ünlü Endirlik B., Bakır E., Yay A. H., Baldemir Kılıç A.  
Sağlık Bilimleri Dergisi, vol.26, no.3, pp.211-215, 2017 (Peer-Reviewed Journal)
- IX. **Dimethoate-induced renal toxicity in rats and the protective/ ameliorative effects of Laurocerasus**

**officinalis Roem. (cherry laurel) fruit extract**

Eken A., Ünlü Endirlik B., Bakır E., Baldemir A., Yay A. H.

Macedonian Pharmaceutical Bulletin, vol.62, pp.251-252, 2016 (Peer-Reviewed Journal)

## **Refereed Congress / Symposium Publications in Proceedings**

- I. EFFECTS OF QUERCETIN AND VITAMIN E AGAINST CYPERMETHRIN INDUCED TOXICITY IN LUNG CELLS**  
Bakır E., Ökçesiz Haciseyitoğlu A.  
14th International Symposium on Pharmaceutical Sciences (ISOPS), Ankara, Turkey, 25 - 28 June 2024, pp.104
- II. EVALUATION OF THE HEPATOTOXICITY OF HYDROXYCHLOROQUINE SULFATE IN RATS**  
Bakır E., Ökçesiz Haciseyitoğlu A., Topak D., Gürbüz K., Varol S., Eken A.  
14th International Symposium on Pharmaceutical Sciences (ISOPS), Ankara, Turkey, 25 - 28 June 2024, pp.314
- III. EVALUATION OF THE HEPATOPROTECTIVE EFFECTS OF VITAMIN E AND ALPHA-LIPOIC ACID AGAINST DIMETHOATE TOXICITY**  
Bakır E., Ünlü Endirlik B.  
10. INTERNATIONAL GEVHER NESİBE MEDICAL SCIENCES CONFERENCE, Ankara, Turkey, 3 - 05 February 2023, pp.74-75
- IV. Glifosat Toksisitesine Karşı Çeşitli Antioksidan Maddelerin Koruyucu Etkisinin Karaciğer Hücre Hattında Araştırılması: Ön Çalışma**  
Ünlü Endirlik B., Bakır E.  
5. Uluslararası Hipokrat Tıp ve Sağlık Bilimleri Kongresi, 18 - 19 December 2020, pp.494
- V. Evaluation of Cytotoxic Effects of Carnosic Acid Alone and Combination with Cisplatin in HepG2 Cells**  
Akn U. N., Bakır E., Ökçesiz A., Eken A.  
3rd International conference on Natural Products for Cancer Prevention and Therapy, Kayseri, Turkey, 18 - 20 December 2019
- VI. Possible cytotoxic effects and molecular mechanisms of tamoxifen and quinazoline derivatives doxazosin, erlotinib on endometrial cancer cells**  
KARACA B., EKEN A., BAKIR E., AYCAN M. B., CUMAOĞLU A.  
10th International Congress of the Turkish Society of Toxicology, 16 - 19 October 2019
- VII. Evaluation of cytotoxic, genotoxic and apoptotic effects of flurbiprofen in human liver cancer cell line**  
Bakır E., Çal T., Aydın Dilsiz S., Canpınar H., Eken A., Ündeğer Bucurgat Ü.  
10th International Congress of the Turkish Society of Toxicology, Antalya, Turkey, 16 - 19 October 2019, pp.80
- VIII. Apoptotic effects and cell cycle analysis of flurbiprofen in human cervical carcinoma cells**  
Bakır E., Çal T., Aydın Dilsiz S., Canpınar H., Eken A., Ündeğer Bucurgat Ü.  
10th International Congress of the Turkish Society of Toxicology, Antalya, Turkey, 16 - 19 October 2019, pp.151
- IX. Cytotoxic and genotoxic effects of flurbiprofen in hela cells.**  
Bakır E., Aydın S., Eken A., Ündeğer Bucurgat Ü.  
12th International Symposium on Pharmaceutical Sciences (ISOPS), Ankara, Turkey, 26 - 29 June 2018, pp.1
- X. Protective effects of chlorogenic acid and vitamin c against oxidative stress caused by dimethoate in human erythrocytes**  
EKEN A., BAKIR E., ÖKÇESİZ A.  
12th International Symposium on Pharmaceutical Sciences (ISOPS), Ankara, Turkey, 26 - 29 June 2018, pp.1
- XI. INVESTIGATION OF PERFLUOROALKYL SUBSTANCES IN TAP WATER SAMPLES TAKEN FROM SEVERAL PROVINCES IN TURKEY**  
Ünlü Endirlik B., Bakır E., Boşgelmez I. I., Eken A., Narin I., Gürbay A.  
12th International Symposium on Pharmaceutical Sciences, Ankara, Turkey, 26 - 28 June 2018
- XII. Investigation of potential neurotoxic effects of perfluorooctanoic acid in Balb c mice by evaluating oxidative stress induction and possible protective effects of taurine and coenzyme Q10 in this model**

## system

ÜNLÜ ENDİRLİK B., ÖZGER E., EKEN A., ÖZTÜRK F., GÜRBAY A.

EUROTOX, 4 - 07 September 2016

- XIII. **Dimethoate induced renal toxicity in rats and the protective ameliorative effects of *Laurocerasus officinalis* Roem cherry laurel fruit extract**  
EKEN A., ÜNLÜ ENDİRLİK B., ÖZGER E., BALDEMİR A., YAY A. H.  
6th Congress of Pharmacy in Macedonia, 1 - 05 June 2016
- XIV. **Oxidative stress inducing effects of perfluorooctanoic acid in kidneys of mice and possible protective effects of taurine and coenzyme Q10**  
ÜNLÜ ENDİRLİK B., EKEN A., BAKIR E., Gürbay A.  
2nd International Congress of Forensic Toxicology, "Industrial and Environmental Toxicology", Ankara, Turkey, 26 - 30 May 2016, pp.219
- XV. **DIMETHOATE INDUCED TOXICITY IN RAT BRAIN AND THE AMELIORATIVE EFFECT OF LAUROCERASUS OFFICINALIS ROEM CHERRY LAUREL FRUIT EXTRACT**  
Eken A., Özger E., Ünlü Endirlik B., Baldemir A., Yay A. H., Cantürk Tan F., Caner Y.  
2nd INTERNATIONAL CONGRESS OF FORENSIC TOXICOLOGY, Ankara, Turkey, 26 - 30 May 2016
- XVI. **Dimethoate-induced hepatotoxicity in rats and the protective/ameliorative effects of cherry laurel (*Laurocerasus officinalis* Roem.) fruit**  
EKEN A., ÜNLÜ ENDİRLİK B., ÖZGER E., BALDEMİR A., YAY A. H., CANTÜRK F., CANER Y.  
9th Congress of the Turkish Society of Toxicology with the participation of the Hellenic Society of Toxicology, TurkHelTox2015 Congress, İzmir, Turkey, 21 - 24 October 2015, vol.0, no.0, pp.42
- XVII. **Reproductive Toxicity of Dimethoate In Rats and The Protective/Ameliorative Effects of Cherry Laurel (*Laurocerasus Officinalis* Roem.) Fruit**  
Özger E., Eken A., Sarıözkan S., Ünlü Endirlik B., Baldemir A., Yay A. H., Cantürk F., Caner Y.  
9. Uluslararası Katılımlı Türk Toksikoloji Derneği Kongresi-TURKHELTOX, İzmir, Turkey, 21 - 24 October 2015, vol.0, no.0, pp.43
- XVIII. **Evaluation of Antioxidant Effects in Rat Liver and Essential Element Contents of Cherry Laurel (*Laurocerasus officinalis* Roem.)**  
EKEN A., BALDEMİR A., ÜNLÜ ENDİRLİK B., ÖZGER E., İLGÜN S.  
11th International Symposium, on Pharmaceutical Sciences, Ankara, Turkey, 9 - 12 June 2015, vol.1, pp.422-423

## Supported Projects

Bakır E., Ökçesiz A., Ünlü Endirlik B., Yılmaz E., Eken A., TUBITAK Project, Three Dimensional A549 Spheroid Model Optimization and Comparative Investigation of the Cytotoxic Effect of Titanium Dioxide Nanoparticle in Mono-Layer Cell Culture and Spheroid Cell Model, 2023 - 2024

EKEN A., HAMURCU Z., ÜNLÜ ENDİRLİK B., BAKIR E., ÖKÇESİZ A., Project Supported by Higher Education Institutions, Glifosat Bazlı Herbisitlerin Apoptoz İndükleyici Etkisinin İnsan Akciğer ve Karaciğer Hücre Hatlarında Araştırılması, 2018 - 2020

EKEN A., CUMAOĞLU A., BAKIR E., KARACA B., AYCAN M. B., Project Supported by Higher Education Institutions, "Kinazolin türevi ilaçların endometriyum kanser hücrelerindeki toksisitesinin ve wntbetakatenin sinyal yolağındaki etkilerinin araştırılması", 2018 - 2020

Eken A., Aycan M. B., Cumaoğlu A., Bakır E., Karaca B., Project Supported by Higher Education Institutions, Kinazolin türevi ilaçların endometrium kanser hücrelerindeki toksisitesinin ve Wnt/beta-katenin yolağındaki etkilerinin araştırılması, 2018 - 2020

ÜNLÜ ENDİRLİK B., EKEN A., BAKIR E., GÜRBAY A., ÖKÇESİZ A., Project Supported by Higher Education Institutions, In vitro Sistemde Glifosat Bazlı Herbisit Toksisitesinin Değerlendirilmesi, 2018 - 2019

EKEN A., BAKIR E., ÜNDEĞER BUCURGAT Ü., Project Supported by Higher Education Institutions, Flurbiprofenin Sitotoksik ve Apoptotik Etkilerinin İnsan Karaciğer Kanser HepG2 Hücrelerinde İn Vitro Değerlendirilmesi, 2017 - 2018

ÜNLÜ ENDİRLİK B., NARİN I., BAKIR E., EKEN A., BOŞGELMEZ I. I., GÜRBAY A., Project Supported by Higher Education

Institutions, Türkiye'deki musluk ve şişe sularında bazı perfloroalkilli bileşik düzeylerinin LC-MS/MS ile belirlenmesi, 2017 - 2018

EKEN A., SARIÖZKAN S., CANTÜRK F., YAY A. H., CANER Y., ÜNLÜ ENDİRLİK B., BALDEMİR A., ÖZGER E., Project Supported by Higher Education Institutions, Dimetoat ile İndüklenen Toksisiteye Karşı Karayemiş (*Laurocerasus officinalis* Roem.) Meyve Ekstresinin Koruyucu Etkilerinin Sıçanlarda Araştırılması, 2013 - 2015

## Memberships / Tasks in Scientific Organizations

Federation of European Toxicology Society (EUROTOX), Member, 2015 - Continues

TURKISH SOCIETY of TOXICOLOGY, Member, 2015 - Continues

International Union of Toxicology (IUTOX), Member, 2015 - Continues

## Scientific Refereeing

journal Of research in pharmacy, Journal Indexed in ESCI, July 2021

## Metrics

Publication: 35

Citation (WoS): 72

Citation (Scopus): 87

H-Index (WoS): 5

H-Index (Scopus): 5

## Congress and Symposium Activities

I. Ulusal Pharmerciyes Eczacılık Kongresi, Attendee, Kayseri, Turkey, 2024

10. INTERNATIONAL GEVHER NESİBE MEDICAL SCIENCES CONFERENCE, Attendee, Ankara, Turkey, 2023

Endokrin Bozucular ve Çocuk Sağlığı, Attendee, Ankara, Turkey, 2020

3rd International Conference of Natural Products for Cancer Prevention and Therapy, Attendee, Kayseri, Turkey, 2019

10th International Congress of the Turkish Society of Toxicology, Attendee, Antalya, Turkey, 2019

Milli İlaç ve Aşı Çalıştayı, Attendee, Kayseri, Turkey, 2018

12th International Symposium on Pharmaceutical Sciences (ISOPS), Attendee, Ankara, Turkey, 2018

HACETTEPE FARMASÖTİK TOKSİKOLOJİ GÜNLERİ-1, Attendee, Ankara, Turkey, 2018

IV. TOKSİKOLOJİ SEMPOZYUMU "Toksikolojide Kariyer Günleri", Attendee, Eskişehir, Turkey, 2017

2nd INTERNATIONAL CONGRESS OF FORENSIC TOXICOLOGY, Attendee, Ankara, Turkey, 2016

9th Congress of the Turkish Society of Toxicology with the participation of the Hellenic Society of Toxicology, TurkHelTox, Attendee, İzmir, Turkey, 2015

XI. Türk Eczacılık Tarihi Toplantısı, Attendee, Kayseri, Turkey, 2014

19th Annual Conference of the European Association of Faculties of Pharmacy (EAFF), Attendee, Ankara, Turkey, 2013

11. Türkiye Eczacılık Kongresi, Attendee, Ankara, Turkey, 2012

## Awards

Akın U. N., Bakır E., Ökçesiz A., Eken A., Best Oral Presentation Award, 3Rd International Conference On Natural Products For Cancer Prevention And Therapy, December 2019

Eken A., Bakır E., Ünlü Endirlik B., Baldemir Kılıç A., Yay A. H., Cantürk Tan F., Caner Y., Poster ödülleri ikincisi, 2Nd

International Congress Of Forensic Toxicology, May 2016

Eken A., Ünlü Endirlik B., Bakır E., Baldemir Kılıç A., Yay A. H., Cantürk Tan F., Cantürk Y., Poster ödülleri üçüncüsü,  
Turkish Society Of Toxicology With The Participation Of The Hellenic Society Of Toxicology (Turkheltox), October 2015